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AIR POLLUTION
CONTROL PROGRAM

MAGNITUDE 7 METALS
P.O. BOX 395
391 ST. JUDE INDUSTRIAL PARK
MARSTON, MO 63866
Tel 573-643-0023

March 6, 2020

CERTIFIED MAIL # 7011 2000 0002 1115 9107

Heather Lehman
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176

RE: NOTICE OF VIOLATION RNOV #AP20001

Magnitude 7 Metals LLC is submitting the following response to Referral Notice of Violation (RNOV) #AP20001 that was issued on February 7, 2020. The RNOV was addressed to Pedro Gonzalez with the title of Chief Executive Officer (CEO). Mr. Gonzalez is the Chief Operating Officer (COO) of Magnitude 7 Metals LLC and Charles Reali is the Chief Executive Officer.

Violation #1 – Failure to submit a test plan

Magnitude 7 is working on a test plan that will be made available to the department within the 45 day time limit (from receipt of this RNOV on February 11, 2020) required by this notice. The test plan will include procedures for conducting initial and subsequent required performance testing.

Violation #2 – Failure to submit testing required by Subpart LL

Magnitude 7 will submit all testing that has been done in the last 3 years to the Department and to EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). Magnitude 7 is currently working with EPA to determine the correct facility ID to use in CEDRI to enter the data.

Violation #3 – Failure to demonstrate compliance with BACT limits in Permit #102004-001A

The testing was completed by Noranda in 2005, but the results were not submitted. Magnitude 7 will submit the data from the testing done to show compliance with the BACT limits in the special conditions of Permit #102004-001A. These will be submitted within 45 days with the other testing that will be submitted.

Violation #4 – Failure to submit SO₂ and PM₁₀ modelling from Permit #102004-001A

The APCP states in the violation that Mag 7 failed to submit post-construction SO₂ and PM₁₀ modeling in accordance with the Special Conditions of air Permit-to-construct 102004-001A, as shown below.

11. **Post-Construction Sulfur Dioxides and PM₁₀ Modeling Requirement**
 - A. Noranda Aluminum, Inc. shall submit a full impact analysis for SO₂ and PM₁₀ that considers the impact of the entire installation itself, in addition to other interactive sources within the region. All SO₂ and PM₁₀ sources at the installation should be included in the analyses. The analyses shall be used to verify compliance with the National Ambient Air Quality Standards (NAAQS) of SO₂ and PM₁₀.
 - B. A modeling protocol shall be submitted to the Air Quality Modeling Unit not later than 90 days after the issuance of the permit outlining the methodology that will be used to evaluate the ambient impact of SO₂ and PM₁₀.
 - C. If results from the full impact analysis show that the SO₂ and/or PM₁₀ emissions contribute to or cause the NAAQS to be exceeded, Noranda Aluminum, Inc. shall submit a corrective action plan to the Missouri Department of Natural Resources, Air Pollution Control Program. This corrective action plan shall be submitted within 90 days of completion of the full impact analysis and shall include post-construction monitoring as well as details on how the installation will decrease SO₂ and/or PM₁₀ emissions in order to comply with the NAAQS.
 - D. Upon the Air Pollution Control Program's approval of the corrective action plan, Noranda Aluminum, Inc. shall implement the plan within 90 days of the receipt of the full impact analysis.

The alleged violation is false. On May 26, 2005, Noranda Aluminum, Inc. responded to the special condition in the 2004 PSD permit and submitted NAAQS modeling for PM₁₀ and SO₂. The modeling was agreed to in a modeling protocol that was reviewed by the APCP. Mag 7 has copies of the letter and the protocol. Along with the letter, Noranda submitted a dvd containing

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the results of the modeling. A copy of the 2005 letter is included as an attachment to this response. Following the submittal of the modeling, Noranda did not hear back from the MDNR. The model did not show compliance with the NAAQS, and Noranda suggested the next step was to monitor for the pollutants. In 2008, Noranda started pre-construction monitoring of PM10 and SO2 for a new PSD permit. This monitoring showed compliance with all the air quality standards in effect at the time. Thus, no corrective action was needed.

Since Violation #4 is false, Mag 7 does not need to complete Action Item #6.

Violation #5 – Failure to maintain 12 month PM10 emissions records as required by Permit #032008-009.

Magnitude 7 has generated the records for the PM10 emissions that are required by Permit #032008-009. The records cover the period of time that Magnitude 7 has been in operation. Magnitude 7 also generated the records for Noranda's emissions from January 2013 until they closed in 2016.

Violation #6 – Failure to submit accurate Compliance and Monitoring reports

Magnitude 7 will submit corrected Annual Compliance Certifications for 2018 and the Semi-annual Monitoring report for the first half of 2019. The Semi-annual Monitoring report for the first half of 2019 from Magnitude 7 lists Permit No. OP2001-062 as being not in compliance due to failure to complete required performance testing (see attached copy).

If you have any questions, you can contact me at (573) 643-0023. My e-mail address is: nancy.halford@magnitude7metals.com.

Sincerely,



Nancy Halford
Environmental Superintendent

Enclosure

CC: D. Backfisch

May 26, 2005

Ms. Dawn Froning
Missouri Department of Natural Resources
Air Pollution Control Program
205 Jefferson Street
P.O. Box 176
Jefferson City, Missouri 65102-0176

**RE: PSD Construct Permit for Noranda Aluminum, Inc.
MDNR Project No. 2003-11-053
PM₁₀ and SO₂ NAAQS Modeling**

Dear Ms. Froning:

On September 3, 2004, Noranda Aluminum, Inc. (Noranda) received a Prevention of Significant Deterioration (PSD) construction permit (permit) from the Missouri Department of Natural Resources (MDNR) to increase production at the Noranda facility located in New Madrid, Missouri. Special Condition 11(A) of the permit includes the requirement to submit a full impact analysis for SO₂ and PM₁₀ that considers the impact of the entire installation plus other interactive sources within the region. The analysis shall be used to verify compliance with the national ambient air quality standard (NAAQS) for PM₁₀ and SO₂.

Trinity has conducted PM₁₀ and SO₂ CALPUFF modeling for Noranda and the interactive sources in the area around Noranda to determine the modeled impacts for comparison with the NAAQS. At this time, the modeled impacts are above the PM₁₀ annual and 24-hour NAAQS and the SO₂ 24-hour NAAQS. Based on the modeling that has been completed thus far, Noranda anticipates that ambient air monitoring will be required.

A compact disc (cd) containing the electronic emission calculation and modeling files is enclosed with this letter. The table on the following page provides a summary of files included on the cd. The modeled impacts corresponding to the run numbers listed in the table are provided on the electronic file "RunSummary.xls" in the cd root directory. At this time, Trinity has not completed a final 8-year PM₁₀ modeling analysis that includes Noranda and all of the interactive sources. The reason that a final 8-year analysis has not been completed is that the results from the modeling completed using 1990 as a base case year suggest modeled impacts for some of the interactive sources that are so far above the PM₁₀ NAAQS that Trinity feels the modeling issues need to be reviewed before conducting additional modeling.

Also included on the enclosed cd is an updated data file containing 1998 surface air meteorological data for input into CALMET. The 1998 surface air meteorological data file was revised to exclude the data collected at Noranda's meteorological surface station for this year. During the CALPUFF modeling analysis, it was discovered that the wind direction data collected from February 1998 through December 1998 only included wind directions from 0 to 80 degrees. Wind directions from 0 to 80 degrees for eleven months of the year are not realistic, and are inconsistent with wind directions for other years for the same time period. After the removal of the data collected at Noranda's meteorological surface station for 1998, there are 13 surface stations for which surface data was processed for use in CALMET.

Summary of Noranda PM10 and SO2 CALPUFF NAAQS Modeling Analysis

Run No.	Modeled Facility	Pollutants and Years Modeled	Modeled Sources	Modeled Emission Rates	Spreadsheet Containing Emission Calculations and/or Modeled	Location of Electronic CALPUFF/CALPOST Modeling Files Submitted to MDNR	Comments
1	Noranda	PM10 and SO2: 1990	All sources	PTE for all sources	ModelInputSpreadsheets\Noranda\ModellInputs_BaseCase.xls	CPUFFModelFiles\Noranda\BaseCase	None
2	Noranda	PM10 and SO2: 1990, 1992, 1996, 1997-2001	All sources	PTE for all sources with the following refinements: 1. Reduced the grain loading from 0.01 gr/dscf to 0.005 gr/dscf for EP04, 46, 47, 50, 58, 68, 69, 70, 82, 83, 84, and DW) 2. Reduced the allowable operating hours from 24 to 8 for EP04, 86, and 87 3. Reduced the MHDR for EP 86 and 87 from 1 lb/hr to 0.5 lb/hr 4. Reduced the allowable emission rate for melters (EPAB, AD, AF, AH, AN, BA, and BC) from 2.4 lb/hr to 1.06 lb/hr 5. Reduced the allowable emission rate for holders (EPAG, AE, AI, BB, and BD) from 2.4 lb/hr to 0.95 lb/hr and EPBH from 1.2 lb/hr to 0.11 lb/hr	ModelInputSpreadsheets\Noranda\ModellInputs_BestCase.xls	CPUFFModelFiles\Noranda\BestCase	None
3	AECI	PM10: 1990 SO2: 1990, 1992, 1996, 1997-2001	All sources	PTE for all sources as calculated by Trinity	ModelInputSpreadsheets\AECI\ModellInputs_AECIFacility.xls (also see tab TrinityvsMDNR)	CPUFFModelFiles\AECI\Facility	For 1992-2001, only SO2 emissions were considered, PM10 rates for sources with SO2 emissions are included, but were not evaluated
4	AECI	PM10: 1990 SO2: 1990	All sources except barge pump	PTE for all sources as calculated by Trinity	ModelInputSpreadsheets\AECI\ModellInputs_AECIInventory.xls	CPUFFModelFiles\AECI\Facilityminusbarge	AECI no longer receives coal by barge, however, AECI does run the barge pumps once per month to make sure they could be operated if needed.
5	AECI	PM10: 1990	Storage pile and haul road	PTE as calculated by Trinity	ModelInputSpreadsheets\AECI\ModellInputs_AECIInventory.xls	CPUFFModelFiles\AECI\Area	None
6	AECI	PM10: 1990 SO2: 1990	Emergency Generator	PTE as calculated by Trinity	ModelInputSpreadsheets\AECI\ModellInputs_AECIInventory.xls	CPUFFModelFiles\AECI\EmerGen	None
7	Noranda plus AECI (SO2 Only)	SO2: 1990	SO2 sources	PTE for all sources	ModelInputSpreadsheets\Noranda\ModellInputs_BestCase.xls and ModelInputSpreadsheets\AECI\ModellInputs_AECIInventory.xls	CPUFFModelFiles\Noranda_AECI	Only SO2 emissions were considered, PM10 rates for sources with SO2 emissions are included, but were not evaluated
8	Riceland	PM10: 1990	All sources	PTE for all sources as provided by the MDNR	ModelInputSpreadsheets\OtherInteractiveSources\Missouri\NorandaNoRawData.xls	CPUFFModelFiles\Riceland	None
9	Remaining Interactive Sources	PM10: 1990 SO2: 1990	All sources	PTE for all sources as provided by the MDNR, Kentucky, Arkansas, Illinois, and Tennessee	ModelInputSpreadsheets\OtherInteractiveSources\Kentucky\KentuckyInventory_ROI.xls ModelInputSpreadsheets\OtherInteractiveSources\Arkansas\ArkansasInventory.xls ModelInputSpreadsheets\OtherInteractiveSources\Illinois\Email rt	PM10: CPUFFModelFiles\Interactive-NoAECI,Riceland,Noranda\PM10 SO2: CPUFFModelFiles\Interactive-NoAECI,Riceland,Noranda\SO2	None

Ms. Dawn Froning -- Page 2
May 26, 2004

If you have any questions or comments please call me at (573) 643-2361.

Sincerely,

TRINITY CONSULTANTS.

Kasi Dubbs
Senior Consultant

cc: Dave Hart, Noranda Aluminum, Inc.
Don Backfish, Noranda Aluminum, Inc.
Arron Heinerikson, Trinity Consultants
Nick Johnson, Trinity Consultants

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REPORTING PERIOD

1 January 2019 through 30 June 2019

1. PLANT-WIDE PERMIT CONDITIONS

Did the installation experience any deviations during the reporting period from the plant-wide permit conditions?

☐ YES ☒ NO**2. EMISSION UNIT PERMIT CONDITIONS**

Did the installation experience any deviations during the reporting period from the emission unit permit conditions?

☐ YES ☒ NO**3. CORE PERMIT REQUIREMENTS**

Did the installation experience any deviations during the reporting period from the core permit conditions?

☐ YES ☒ NO**4. GENERAL PERMIT REQUIREMENTS**

Did the installation experience any deviations during the reporting period from the general permit conditions?

☐ YES ☒ NO

NOTE: If you checked "Yes" in any of the four deviation questions above, and the installation has not previously reported the deviations, the installation must complete Part 3 of the Compliance Certification and Monitoring Report Form.

5. CURRENT COMPLIANCE STATUS

Are you currently in compliance with all air pollution requirements?

☐ YES ☒ NO

The testing required by permit conditions EU1970-004 through EU2050-004 were not completed during the first half of 2019. Testing is scheduled to complete the requirements by the end of 2019. The delayed testing was caused by equipment related issues affecting the "normal" operation of the facility.

Magnitude 7 Metals LLC

Compliance Plan

1. Magnitude 7 Metals will submit all testing for Total Fluoride, PM, POM, and Hg completed in the last three years within 45 days of receipt of the Referral Notice of Violation (RNOV) #AP200001. The RNOV was received on February 11, 2020 so the data will be submitted no later than March 27, 2020. The results will also be submitted to EPA via the Compliance and Emission Data Reporting Interface (CEDRI). Mag 7 is currently working with EPA to resolve an issue with multiple facility ID's caused during the transition from Noranda to Mag 7 that is not allowing access to CEDRI. If the issue is not resolved soon it could affect Mag 7's ability to submit the reports to CEDRI within the 45 day timeframe.
2. Magnitude 7 will submit a test plan within 45 days of receipt of the RNOV (by March 27) to conduct performance testing for Department approval. The test plan will include procedures for conducting all performance tests required in 63.848 with the exception of mercury testing in the Anode Bake furnaces. This testing will be provided by an outside contractor and the test plan will be submitted after the contractor is chosen. Mag 7 is receiving proposals to conduct the testing, but may not be able to meet the March 27 timeframe for submitting the test plan.
3. Magnitude 7 will conduct all performance tests as soon as practicable. Mag 7 does not have the resources to be able to conduct all of the performance tests required within 60 days of the Department's approval of the test plan or to be able to give the 30 day notice prior to performance testing as mentioned in the required actions #3 and #4 of the RNOV. Mag 7 will provide a proposed schedule of compliance testing that will include all testing that will be required for 2020 with all annual and the 1st half semi-annual testing to be completed by the end of June. Mag 7's future testing schedules will be submitted at least 30 days before the testing.
4. Magnitude 7 will submit all future test reports to the Department within 60 days after completion of the test. Please note that the Potline roof (secondary emissions) testing is required by regulation (63.847(b)(8)) to be spread out during the month. Of the three runs required, one run has to be before the 15th, one run has to be after the 15th, and there has to be at least 6 days between 2 of the runs during the month. Mag 7 will also report the test results to EPA via CEDRI in the same 60 day timeframe.